Chapter IV

RESEARCH METHODOLOGY

The present chapter details the sampling methods and questionnaire administration adopted in this study.

4.1 Validation Research

The current in-market validation research for Advertisement effectiveness consists of store exit interviews designed to assess impact on the attitude towards brand, attitude towards advertisement and Purchase intent. Other measures include awareness of POP displays, and reaction to them. The impact on purchasing and impulse purchases also will be assessed. Branding metrics such as brand awareness, message association, brand favorability, and purchase intent are attitudinal in nature and measure people's minds through their attitudes. Widely used in the offline world in terms of effectiveness tracking, branding metrics can only be gathered through consumer interviews.
Celebrity Endorsed Ads and Point of Purchase Ads are assumed to be most effective in the case of soft drink Companies. Much of the support for these comes from a limited number of research projects aimed at validating their impact. However, these validation studies have been inconclusive owing to both the results, and to issues related to data quality and difficulty in controlling the test environment. For this reason additional validation research is adopted.

In-store observations were not used in the current research as an element for the current validation research. In the past, some validation studies have included in-store observations of how consumers approach and react to Ads and in store POP displays. However, these data have not been very informative, nor has it been regarded as reliable too. This is especially true given that the measures obtained are not related to sales volume and brand equity, and are of only secondary importance.
Store exit interview has been used in the present study as a measure of validation. There are three major advantages of assessing Ad effectiveness through store exit interviews. First, the source of data is under absolute control. Secondly, these data are a direct reflection of what consumers purchased during the period of study. And thirdly, consumer purchases can be correlated with their evaluations of the displays. Since store exit interviews are conducted to measure brand equity and other related elements, there is little incremental cost to source further data pertaining to the shoppers. The store exit interviews help in accomplishing certain secondary objectives like recall of displays, impression of displays recalled and evaluation of displays.

Given the importance of allocating marketing resources in an optimal manner, the impact of Celebrity Ads and other marketing initiatives like POP Ads must be accurately determined. The research protocols presented in this chapter are an effort to establish best practices with regard to assessing the merits of Celebrity and POP.
Ads. The overall objective of the research is to provide an appropriate and efficient approach for validating these marketing programs in the marketplace.

The evaluation of Ad impact in the present study is based on a current set of stores serviced by Coca-Cola and Pepsi under regular market conditions. Stores are matched on the basis of key factors such as size, traffic, CSD volume, pricing, and social demographics. However, given the difficulties in maintaining store conditions during the test period, the data were modeled using pooled regression analysis. This allows all the data to be used regardless of retailers’ compliance with maintaining store conditions and competitive activity.

4.2 Sampling Design

Bangalore city in India was chosen for data collection, as it is cosmopolitan in nature, and houses a large number of Indian and Multi National IT and ITES\(^1\).

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\(^1\) Information Technology and Information Technology Enabled Services include Business Process Outsourcing companies and Call Centers.
industries. This has provided ample opportunity for other ancillary industries to develop and support these industries. In addition, due to the fast industrialization taking place, life-style of the people has also changed owing to increased earnings. This has resulted in adoption of multinational culture.

The methods of sampling used and sample size of the present research are explained below.

The study necessitated two categories of sample selection. First, the selection of the stores for study from across the city of Bangalore and second the selection of consumers for exit interviews. Figure 4.1 shows the map of Bangalore revealing the localities chosen for the present study.
Multi stage stratified random sampling was followed for selecting the Store samples and 15 stores were selected. In the first stage, Bangalore was divided into five geographical sections as North, South, East, West and Central Bangalore. Then, one area from each section was selected at random as a representative sample of the respective section. The next stage of sampling was done
at random based on Locality Income Group (High and Medium), Store Categorization (Diamond and Gold\(^1\)) and Store Type (Grocery, Eating & Drinking and Convenience).

Table 4.1 represents the categorization of stores sample by trade channel, income group and store category.

### Table 4.1 Store Samples of moderating elements

<table>
<thead>
<tr>
<th>Trade Channel</th>
<th>Stores Selected</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating &amp; Drinking</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td>Convenience</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Grocery</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td><strong>n</strong></td>
<td><strong>15</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Locality Income Category</th>
<th>Stores Selected</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>7</td>
<td>46.67</td>
</tr>
<tr>
<td>Medium</td>
<td>8</td>
<td>53.33</td>
</tr>
<tr>
<td><strong>n</strong></td>
<td><strong>15</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Store Category</th>
<th>Stores Selected</th>
<th>% of Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>9</td>
<td>60</td>
</tr>
<tr>
<td>Diamond</td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td><strong>n</strong></td>
<td><strong>15</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Developed by the researcher

For the exit interviews, shoppers exiting the stores were chosen on the basis of a systematic sampling method. Every fifth shopper exiting the store who appears to be

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1 Categorization is based on the Volume of sales per outlet - Diamond outlet sell more than 500 cases per annum and Gold Outlets sell between 200 to 500 cases per annum.
in the appropriate age group\(^1\) was approached. Systematic sampling method was justified in selecting samples as supported by Aaker et.al.(1990)\(^2\), who have argued that the accuracy of systematic sampling could exceed that of simple random sampling when ordering of the elements is related to the characteristics of interest because the sample was more representative of the population.

**Sampling Size**

The current study used regression as one of the major forms of analysis. The reliability of results of the analysis are dependent on the sample size. Higher sample size gives out reliable results which are comparable to similar research conducted. The researcher has kept in mind cost involved and the number of elements under independent variables and elements under dependent variables. A sample size of 305 samples is selected since it is opined that it will give sufficient idea.

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1 Coca-Cola and Pepsi identify the age group of 12 to 45 as an ideal age group for any such study. Both the companies do not target children below the age of 12 as a policy across the globe.

4.3 Questionnaire Design

The current study is based on a structured exit interview of consumers coming out of the Shop. A structured questionnaire was developed as it provides a rapid and relatively inexpensive way to obtain information (Kumar, 1996). The popular Likert’s five point scale, ranging from strongly disagree to strongly agree has been used as the measuring scale.

Keeping in view the real life market scenario, where consumers are preoccupied with their day to day requirements of life, it is expected that they can spare at the most 5 to 10 minutes and nothing more for such kind of exit interviews. It is critical as suggested by Fowler and Mangione (1990), that one of the most important ways for a researcher to ensure standardization of gathering information is to ask questions which are easily understood and answered. Considerable attention

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was given for developing clear and unambiguous questions devoid of any jargon and technical terms as suggested by De Vaus (1991).

Contents of the Questionnaire

The questionnaire has three sections. The first section starts with an introduction of the researcher to the consumer and requesting for a fair response for the accuracy of data. It is followed by a set of questions targeted towards gathering the demographic details including Gender and Age of the consumer.

The next part elicited information pertaining to the Soft Drink Advertisement that the consumer would have watched on TV, seen in News papers or Magazines in the last 3 months. This was a pure unaided recall test. This was to understand and analyze the top of mind Advertisement, Brand and Celebrity.

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Subsequently, the consumer was asked to spell out his first favorite brand and second favorite brand. This was followed by a question related to Point of Purchase Ad and the most probable reason for his purchase of Soft Drinks.

Further sections were divided into Part A which relates to the independent variable and Part B which relates to the dependent variables of the current study.

Part A had two sections one each for Celebrity Endorsement and POP Ad elements each having 5 questions. The responses were based on a 5 point Likert type scale, 1 being strongly disagree and 5 being strongly agree.

Similarly, Part B of the questionnaire had three sub parts with two questions each for Attitude towards Ads, Attitude towards Brand and Purchase Intent.

A copy of the questionnaire has been presented at the end of the Thesis (Annexure-I).
Outline of the Questionnaire

Before outlining the questionnaire, some features of the sample design and flow of the interview merit discussion.

- All shoppers approached via the sampling scheme were interviewed regardless of whether they purchased soft drinks on that shopping trip. (However, care was taken to ensure that all respondents were past month CSD purchasers). Non-purchasers have also been included to determine the impact on impulse purchasing.

- Soft drink users who did not purchase on that shopping occasion were also included in the interview as this would provide benchmark information, and will help address several questions including:
  
  o Does exposure/awareness of displays increase brand equity even if purchasing does not occur on that occasion?
Among those aware of displays, do purchasers rate them differently (appeal, functionality) than non-purchasers?

Are there differences observed between store types i.e., do POP displays attract a particular type of consumer (age group, heavy users) to a particular type of store?

- It was ensured that the proportion of shoppers interviewed was skewed more towards purchasers. However, it was essential that all shoppers be approached as the sampling scheme dictates, and the number of purchasers and non-purchasers recorded.

- Brand equity ratings were obtained only for certain brands of Coca-Cola and Pepsi. Obtaining ratings for several brands individually takes too long and induces respondent fatigue.

- Brand equity ratings were obtained unaided and without reference to displays. Data was analyzed on the basis of display awareness to infer their impact.
The steps for administering the questionnaire are outlined in Figure 4.2. The following section details each step of the process.

**Figure 4.2 Process of Store Exit Interview**

**4.4 Questionnaire Validity**

Validity is defined by Kumar (1996) as "the ability of an instrument to measure what it is designed to"
measure’. It implies that validity is defined as a measure of accuracy of measurement. There are basically three kinds of validity assessments that are applicable to this study which are elaborated in the following section.

**Face Validity**

Face validity is a mirror reflecting clarity of the questionnaire. It is considered to be a basic and very minimal index of validity. It indicates that the items being presented on the questionnaire are clear and understandable to the interviewee. In the current study the face validity of the questionnaire is achieved by giving the questionnaire to an initial set of 10 respondents and ascertaining their feedback.

**Content Validity**

Content validity authenticates the logical link between the questions and the objectives of the study. It
is judged on the basis of the extent to which questions represent the elements they are supposed to measure. Content validity is said to have been achieved if the items of an instrument cover the full range of elements being measured. Kumar (1996) indicates three ways of achieving content validity: 1) Literature, 2) Qualitative Research and 3) Panel of Experts in the field.

Content validity of the current questionnaire was achieved by requesting the experts in The Coca-Cola Company, where the researcher is working, to review the questionnaire. They were requested to review the designed questionnaire and provide the researcher with suggestions for improvement. The current questionnaire has been scrutinized for content and face validity by these professional practitioners.

*Construct Validity*

Construct validity can be measured in terms of convergent validity or discriminate validity. Fundamentally construct validity depends on whether it
can measure the theoretical construct, which it was
supposed to measure.

Convergent validity is established when the scores
obtained by two different instruments measuring the same
concept are highly correlated. The current questionnaire
is validated for Convergent validity by using correlation
analysis.

4.5 Reliability Test

Reliability measures the consistency of results on
repeated tests. Greater the degree of consistency of
result, greater is its reliability. Reliability generally
is seen as a degree of consistency of measure.

Methods concerning internal consistency establish
correlation between inter items. The assumption of
internal consistency is that a good instrument is
comprised of homogeneous items. The current questionnaire
is tested for reliability by verifying the consistency of
responses to all the items of the questionnaire.
The internal consistency of questionnaire items were estimated by comparing the results with the recommended Cronbach’s Coefficient Alpha (\(\alpha\)) as Cronbach’s coefficient alpha is the most popular test of inter item consistency reliability. Hair et.al.(1998) have suggested that a Cronbach Alpha Coefficient of 0.7 or above is adequate for the early stages of any research. The coefficients for each measure of questionnaire of the current study are given in the Table 5.2.

4.6 Tools of Data Analysis

The shopper’s questionnaire responses were taken in three different parts. Part I constituted the demographic details of the store and consumer including the Gender. Part A of the questionnaire addressed the Celebrity and POP Ad measures and Part B captured the effectiveness measures. The data, thus, captured were statistically analyzed utilizing the regression analysis and ANOVA.

Before performing the regression analysis, Pearson’s product-moment correlation method was performed in order
to examine the construct validity and linear regression analysis was employed for data analysis.
Summary

The current chapter outlined the strategy for Sampling, Exit Interviews, Questionnaire development, validity and reliability of Questionnaire and the analysis approaches.

The initial section of the chapter, details the validation research and Sampling methodology and presented a map of Bangalore identifying the locations of data collections. This section presents the sampling techniques used and the sample size.

Further section elaborated on the Questionnaire design and discussed the contents of the Questionnaire. It also elaborated on the Face, Content, Construct validity and discussed the reliability of the questionnaire.

The chapter concludes by presenting the designs for data analysis.
The next chapter addresses the results of the questionnaire, exit interview and a detailed analysis of the data so collected.